REMARKS

Applicant amends claims 1, 2, 5, 20, 21, 28, 29, 30, 40, 41, 44, 50, 59, and 60. No new matter is added. Upon entry of this amendment, claims 1-63 are pending, of which claims 1, 20, 28, 40, and 59 are independent. Applicant notes with appreciation that the Examiner deems claims 2-6, 10, 21, 29-30, 33, 41-45, 29, 60, and 62 to recite patentable subject matter. Applicant respectfully submits that the pending claims define over the art of record.

Claim Objection

Claim 50 is objected to due to minor informalities. Applicant amends claim 50 to address the Examiner's concern. Applicant respectfully requests that the Examiner reconsider and withdraw the claim objection.

Claim Rejection Under 35 U.S.C. §112

Claim 20 is rejected under 35 U.S.C. §112 second paragraph as being indefinite. Applicant amends claim 20 to address the Examiner's concern. Applicant respectfully requests that the Examiner reconsider and withdraw the rejection to claim 20.

Claim Rejection Under 35 U.S.C. §103

Claims 1,7-9,14,16-17,19-20,22-23,26-28,31-32,35,37-40,46-48,53,55-56,58-59, and 61

Claims 1, 7-9, 14, 16-17, 19-20, 22-23, 26-28, 31-32, 35, 37-40, 46-48, 53, 55-56, 58-59, and 61 are rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 6,145,006 to Vishlitzky et al. (hereafter "Vishlitzky") in view of "Improving Performance by Use of Adaptive Objects: Experimentation with a Configurable Multiprocessor Thread Package" by Schwan et al. (hereafter "Schwan"). Applicant respectfully submits that the combination of the Vishlitzky reference and the Schwan reference fail to teach or suggest the limitation of reading and buffering a checksum from the second file before updating the second file, as required by amended independent claims 1, 20, 28, 40, and 59.

The Vishlitzky reference teaches the use of a resource manager within the storage system to manage the sharing of common resources. However, the Vishlitzky reference does not teach

or suggest the limitation of reading and buffering a checksum from a file before updating the file, as required by the amended independent claims 1, 20, 28, 40, and 59. The Schwan reference fails to bridge the factual deficiency of the Vishlitzky reference.

The Schwan reference teaches how to improve the performance of parallel programs by customizing operating system functionalities. However, the Schwan reference also fails to teach or suggest the limitation of reading and buffering a checksum from a file before updating the file, as required by the amended independent claims 1, 20, 28, 40, and 59.

Additionally, there is no motivation to combine the Vishlitzky reference with the Schwan reference. The Vishlitzky reference focuses on how to provide a universal lock mechanism so that regardless of the type of host computers, one host computer is able to lock out other host computers from accessing certain common resources. See Col. 1, lines 60-67. The Vishlitzky reference achieves this objective by providing a resource manager within the storage system and not on the host computers. See Col. 2, lines 7-10. In contrast, the Schwan reference considers the customization of operating system functionality important to improve performance for specific application programs. See Abstract. Hence for multiple host computers with different operating systems, it becomes cumbersome to write separate customization functionalities for different operating systems to access common resources. Therefore, there is no motivation for one of ordinary skill in the art to modify the Vishlitzky reference with the teachings of the Schwan reference.

Accordingly, Applicant respectfully submits that the combination of the Vishlitzky reference and the Schwan reference do not teach or suggest the limitation of the limitation of reading and buffering a checksum from a file before updating the file, as required by the amended independent claims 1, 20, 28, 40, and 59. Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of independent claims 1, 20, 28, 40, and 59 and their corresponding dependent claims 7-9, 14, 16-17, 19, 22-23, 26-27, 31-32, 35, 37-39, 46-48, 53, 55-56, 58, and 61.

Claims 11-13, 24, 34, 50-52, and 63

Claims 11-13, 24, 34, 50-52, and 63 are rejected under 35 U.S.C. §103(a) as being

unpatentable over Vishlitzky in view of Schwan in further view of "A semi-Optimistic Database Scheduler Based on Commit Ordering" by Taterinov et al. (hereafter "Taterinov") and "Class readwrite lock: public abstractsemaphore" (hereafter "DS"). Applicant respectfully submits that the combination of the Vishlitzky reference, the Schwan reference, the Taterinov reference, and the DS reference do not teach or suggest the limitation of reading and buffering a checksum from a file before updating the file, as required by the amended independent claims 1, 20, 28, 40, and 59, which claims 11-13, 24, 34, 50-52, and 63 depend.

As set forth above, the Vishlitzky reference and the Schwan reference do not teach or suggest the limitation of reading and buffering a checksum from a file before updating the file. Applicant respectfully submits that the Taterinov reference and the DS reference fail to bridge this factual deficiency.

The Taterinov reference teaches a database scheduler that does not block a write on a data item when another transaction holds a read lock on the same data item. However, the Taterinov reference does not teach or suggest the limitation of reading and buffering a checksum from a file before updating the file, as required by claims 11-13, 24, 34, 50-52, and 63.

The DS reference also fails to teach or suggest the limitation of reading and buffering a checksum from a file before updating the file. The DS reference teaches a class for a read/write lock and its corresponding methods. However, the DS reference does not teach or suggest reading and buffering a checksum as required by the claimed invention.

Accordingly, the combination of the Vishlitzky reference, the Schwan reference, the Taterinov reference, and the DS reference do not teach or suggest the limitation of reading and buffering a checksum as required by claims 11-13, 24, 34, 50-52, and 63. Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 11-13, 24, 34, 50-52, and 63.

Claims 15, 25, 36, and 54

Claims 15, 25, 36, and 54 are rejected under 35 U.S.C. §103(a) as being unpatentable over Vishlitzky in view of "A Fair, Fast Scalable Reader-Writer Lock" by Krieger et al.

(hereafter "Krieger"). Applicant respectfully submits that the combination of the Vishlitzky reference and the Krieger reference do not teach or suggest the limitation of reading and buffering a checksum from a file before updating the file, as required by amended independent claims 1, 20, 28, and 40, which claims 15, 25, 36, and 54 depend.

As set forth above, the Vishlitzky reference does not teach or suggest the limitation of reading and buffering a checksum from a file before updating the file. Applicant respectfully submits that the Krieger reference also fails to teach or suggest this limitation.

The Krieger reference teaches a scalable reader-writer lock by using a doubly linked list for readers and when a reader is releasing the lock, the reader synchronize with its nearest neighbors to remove itself from the list. However, the Krieger reference does not teach or suggest reading and buffering a checksum as required by the claimed invention.

Accordingly, Applicant respectfully submits that the combination of the Vishlitzky reference and the Krieger reference do not teach or suggest reading and buffering a checksum from a file before updating the file, as required by claims 15, 25, 36, and 54. Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 15, 25, 36, and 54.

Claims 18 and 57

Claims 18 and 57 are rejected under 35 U.S.C. §103(a) as being unpatentable over Vishlitzky in view of Schwan and further in view of "Design issues for efficient implementation of MPI in Java" by Judd et al. (hereafter "Judd"). Applicant respectfully submits that the combination of the Vishlitzky reference, the Schwan reference, and the Judd reference do not teach or suggest the limitation of reading and buffering a checksum from a file before updating the file, as required by independent claims 1 and 54, which claims 18 and 57 depend.

As set forth above, the combination of the Vishlitzky reference and the Schwan reference fail to teach or suggest the limitation of reading and buffering a checksum from a file before updating the file. Applicant respectfully submits that the Judd reference fails to bridge this factual deficiency.

The Judd reference teaches an implementation of MPI using the Java programming language. However, the Judd reference does not teach or suggest the limitation of reading and buffering a checksum as required by the claimed invention. Additionally, as set forth above, there is no motivation to combine the Vishlitzky reference and the Schwan reference. Applicant further submits that there is also no motivation to modify the teachings of the Schwan reference with the Judd reference as the Schwan reference focuses on customization on different operating systems to improve performance, whereas the Judd reference teaches a cross-platform computer programming language that disregard the performance issue on different platforms.

Accordingly, Applicant respectfully submits that the combination of the Vishlitzky reference, the Schwan reference, and the Judd reference do not teach or suggest the limitation of reading and buffering a checksum as required by claims 18 and 57. Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 18 and 57.

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CONCLUSION

In view of the above amendment, Applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this statement. However, if a fee is due, please charge our Deposit Account No. 12-0080, under Order No. SMQ-119 from which the undersigned is authorized to draw.

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Respectfully submitted,

By _____

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